

BRUHAT BANGALORE MAHANAGARA PALIKE
COMPERATIVE STATEMENT / PWD FORM - 45 (WORK SLIP)

Name of Work: Improvements to drains in chikka siddappa Layout AND ESTABLISHMENT OF RO PLANT AND PROVIDING AND FIXING OPEN Gym and childrens play equipments in Amruthalli in ward no.07, Byatarayanapura Kodigehalli Sub Division.

Name of Agency: Executive engineer, Karnataka Rural Infrastructure Development Limited, # 280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajainagara, Bangalore - 10.

Estimated Cost: 70,00,000.00

Amount : Rs. 69,95,762.00 Lakhs

Work Order No. BBMP/EE/BTP/WO/89/2018-19 Dated: 02.03.2018.

Sl. No.	Description	Unit	Qty. as per Sanctioned Estimate			Qty. as per Tender			Actual executed Qty.	Qty. as per Actuals upto 125%			Qty. as per Actuals above 125%			Total Executed Amount	Savings	Excess	Remarks
			Qty.	Rate	Amount	Qty.	Rate	Amount		Qty.	Rate	Amount	Qty.	Rate 2018-19 +/- T.P	Amount				
1	KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 m and an average lift upto 1.5m, excavated surface levelled and sides neatly dressed, the	cum	331.43	86.92	28807.90	331.43	86.92	28807.90	341.55	341.55	86.92	29687.53	0.00	0.00	0.00	29687.53		879.63	
2	KSRRB 2-1-1: Earthwork in surface excavation in ordinary soil for levelling and lowering the ground manually (other than foundation of buildings, culverts road drains and trenches of pipe lines and cables) and removing the	Cum	120.44	166.42	20043.62	120.44	166.42	20043.62	57.44	57.44	166.42	9559.16	0.00	0.00	0.00	9559.16	10484.46		
3	Providing and constructing load bearing wall with solid concrete solid blocks having block density not less than 18000 Kg/m ³ having a minimum average compressive strength of 5.00 N/mm ² conforming to IS 2185 (PART	Sqm	20.00	993.22	19864.40	20.00	993.22	19864.40	0.00	0.00	993.22	0.00	0.00	0.00	0.00	0.00	19864.40		
4	Providing granite slabs of selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., complete. Pg No.25, Item No.5.31.1 (7.5 cms thick)	cum	97.50	665.68	64903.80	97.50	665.68	64903.80	12.68	12.68	665.68	8440.82	0.00	0.00	0.00	8440.82	56462.98		
5	KSRRB 4-1-3: Providing and laying in position plain cement concrete of nominal mix 1:4:8 using 40mm and down size graded granite metal machine mixed, concrete laid in layers not exceeding 15 cms. Thick well	cum	31.62	5159.02	163128.21	31.62	5159.02	163128.21	0.12	0.12	5159.02	619.08	0.00	0.00	0.00	619.08	162509.13		
6	Cement concrete pavement. Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 with	cum	21.00	5508.82	115685.22	21.00	5508.82	115685.22	0.00	0.00	5508.82	0.00	0.00	0.00	0.00	0.00	115685.22		
7	KSRRB 4-1-6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs with 20mm and down size graded granite metal coarse aggregates @ 0.578 cum and fine aggregates @ 0.53cum.	cum	0.12	5767.46	692.10	0.12	5767.46	692.10	0.12	0.12	5767.46	692.10	0.00	0.00	0.00	692.10		0.00	
8	Providing and fixing open gym equipments and children play equipments in Amruthalli.,		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	TNP 013 WONDER PLAY	Sqm	1.00	1866124.00	1866124.00	1.00	2202026.00	2202026.00	1.00	1.00	2202026.00	2202026.00	0.00	0.00	0.00	2202026.00	0.00	0.00	
	TNP005-Tinfil Fun		1.00	1388132.00	1388132.00	1.00	1637996.00	1637996.00	1.00	1.00	1637996.00	1637996.00	0.00	0.00	0.00	1637996.00	0.00		

SL. No.	Description	Unit	Qty. as per Sanctioned Estimate			Qty. as per Tender			Actual executed Qty.	Qty. as per Actuals upto 125%				Qty. as per Actuals above 125%				Total Executed Amount	Savings	Excess	Remarks
			Qty.	Rate	Amount	Qty.	Rate	Amount		Qty.	Rate	Amount	Qty.	Rate 2018-19 +/- T.P	Amount						
1	Chest Press	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
	18% GST Charges		1.00	182114.00	182114.00	1.00	214895.00	214895.00	1.00	1.00	214895.00	214895.00	0.00	0.00	0.00	214895.00	0.00				
9	KSSRB M 400-17: Providing laying, spreading and compacting graded fine aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix	Cum	48.00	1768.08	84867.84	48.00	1768.08	84867.84	223.20	60.00	1768.08	106084.80	163.20	2001.28	326608.90	432693.70		347825.86			
10	KSSRB-500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and or/ compressed air to remove bituminous	Sqm	1353.60	3.18	4304.45	1353.60	3.18	4304.45	1416.00	1416.00	3.18	4502.88	0.00	0.00	0.00	4502.88		198.43			
11	KSSRB 500-07: Providing and applying tack coat with 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface)	Cum	1353.60	11.66	15782.98	1353.60	11.66	15782.98	1416.00	1416.00	11.66	16510.56	0.00	0.00	0.00	16510.56		727.58			
12	KSSRB 500-18: Providing and laying semi dense bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work, to site laying with a KSSRB M800-13: Road marking with hot applied thermoplastic compound with reflecting glass beads on bituminous surface. Providing and laying of hot applied thermoplastic compound 2.5mm thick including	cum	40.61	6433.14	261249.82	40.61	6433.14	261249.82	42.48	42.48	6433.14	273279.79	0.00	0.00	0.00	273279.79		12029.97			
13	KSSRB M100-1: Loading and unloading of stone boulder/stone aggregates/ sand/ kanker/ moorum. KSSRB M100-1: Placing tipper at loading point loading with front end loader, dumping bunnies for delivery to	Sqm	56.40	542.72	30609.41	56.40	542.72	30609.41	59.00	59.00	542.72	32020.48	0.00	0.00	0.00	32020.48		1411.07			
14	KSSRB 2-1-1: Earth work in surface excavation in ordinary soil for leveling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe line and cables) and removing the	Cum	331.43	106.00	35131.58	331.43	106.00	35131.58	341.55	341.55	106.00	36204.30	0.00	0.00	0.00	36204.30		1072.72			
15	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180 kgs with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57 cum machine	Cum	7.53	169.56	1276.79	7.53	169.56	1276.79	7.53	7.53	169.56	1276.79	0.00	0.00	0.00	1276.79		0.00			
16	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20 cms high, bond stones at two m. apart in each course	Cum	4.26	5256.36	22392.09	4.26	5256.36	22392.09	4.26	4.26	5256.36	22392.09	0.00	0.00	0.00	22392.09		0.00			
17	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chisled dressed in courses not less than 15 cms high, bond stones at two m. apart in each course	Cum	6.03	4521.96	27267.42	6.03	4521.96	27267.42	6.03	6.03	4521.96	27267.42	0.00	0.00	0.00	27267.42		0.00			
18	Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift	Cum	7.53	137.16	1032.81	7.53	137.16	1032.81	7.53	7.53	137.16	1032.81	0.00	0.00	0.00	1032.81		0.00			

SL. No.	Description	Unit	Qty. as per Sanctioned Estimate			Qty. as per Tender			Actual executed Qty.	Qty. as per Actuals upto 125%			Qty. as per Actuals above 125%			Total Executed Amount	Savings	Excess	Remarks
			Qty.	Rate	Amount	Qty.	Rate	Amount		Qty.	Rate	Amount	Qty.	Rate 2018-19+/- T.P	Amount				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
19	KSRR 4-1.6 : Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459	Cum	1.38	5876.28	8109.27	1.38	5876.28	8109.27	1.38	1.38	5876.28	8109.27	0.00	0.00	0.00	8109.27	0.00	0.00	
20	Providing flooring with 60 cms x 60 cms. size Vitrified glazed tiles of approved quality & make, fixed on top of existing flooring fixed with suitable adhesive, including cutting the tiles to the required size and fixing etc.,	Sqm	16.64	1154.52	19211.21	16.64	1154.52	19211.21	16.64	16.64	1154.52	19211.21	0.00	0.00	0.00	19211.21	0.00	0.00	
21	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 of size 450x200x400 mm and finished with CM 1:3 plastering and finishing cutting etc., complete. Page No. 25 / Item No. 5.29.1)	No	130.00	385.84	50159.20	130.00	385.84	50159.20	130.00	130.00	385.84	50159.20	0.00	0.00	0.00	50159.20	0.00	0.00	
22	Providing and applying ready mix priming coat over concrete / masonry, / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter	Nos	58.50	27.56	1612.26	58.50	27.56	1612.26	58.50	58.50	27.56	1612.26	0.00	0.00	0.00	1612.26	0.00	0.00	
23	Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry, / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and KSRB 14.6-1: Providing and laying heavy duty cobble stones 60mm thick interlock pavers, using cement and coarse sand for	Nos	58.50	69.96	4092.66	58.50	69.96	4092.66	58.50	58.50	69.96	4092.66	0.00	0.00	0.00	4092.66	0.00	0.00	
24	Providing R.O. Plant	Sqm	7.50	966.72	7250.40	7.50	966.72	7250.40	7.50	7.50	966.72	7250.40	0.00	0.00	0.00	7250.40	0.00	0.00	
Providing reverse osmosis system to cover 2000 Liters of High TDS water per hour																			
TECHNICAL SPECIFICATIONS																			
Flow Rate:																			
Feed Water : 5000 LPH																			
Treated Water : 3000 LPH																			
Reject Water : 2000 LPH																			
RAW WATER PUMP																			
Purpose:- To feed the Dual Medial filter at pressure more than 2.00 Bars which is min operating pressure for filter?																			
SAND MEDIA FILTER																			
Purpose:- To remove the total suspended solids, dirt, iron and reduce silt density index which can foul the members																			
ACTIVATE CARBON FILTER																			
Purpose:- To remove the total color, smell, odor from the water.																			

SL. No.	Description	Unit	Qty. as per Sanctioned Estimate			Qty. as per Tender			Actual executed Qty.	Qty. as per Actuals upto 125%			Qty. as per Actuals above 125%			Total Executed Amount	Savings	Excess	Remarks
			Qty.	Rate	Amount	Qty.	Rate	Amount		Qty.	Rate	Amount	Qty.	Rate 125% 19+/- T.P	Amount				
1	Media: Mixed bed sand media consisting of the following i) Gravel ii) Pebbles iii) carbon Average porosity 50 micron particulate size bed depth : 1500 mm pipelines & Accessories : Pipe of PVC 10 Bar tested pressure testing																		
	DOSING SYSTEM																		
	Purpose : To dose anti scaling chemical to protect the scaling formation on RO Membranes																		
	MICRON FILTER																		
	Purpose : To remove the fine particles ip to 05 microns and reduce silt density levels to acceptable level.																		
	HIGH PRESSURE PUMP																		
	Purpose : To feed the reverse Osmosis membrane at pressure more than the osmotic pressure taking into consideration flux rate, flow and recovery																		
	RO membrane housing.																		
	Purpose : To pack membrane and operate at high pressure.																		
	RO MEMBRANES																		
	Purpose : To remove the major part of TDS into 98% by Reverse Osmosis Membranes arranged and designed to give adequate flow the Recovery.																		
	RO CLEANSING SYSTEM																		
	ELECTRICAL PANEL																		
	Purpose : A control panel is provided as a safety measure for the pumps & other electrical items.																		
	Specifications a) Complete starters, overboard relays, b) Voltmeter, Ammeter, MCBs indicating lights, c) Rocker switches for Dozers, d) Incomers, Auto-Manual switches.																		
	INSTUMENTATION																		
	Purpose : a) Flow meter : To measure the online flow of water flowtec b) Low pressure switch : To protect RO pump from dry running c) High pressure switch : To protect RO pump from back pressure d) Pressure																		
	PH DOSING SYSTEM																		
	Purpose to dose sodium Bi-carbonate for enhances product water SS till the pre-filtration & SS from HPP to the premier line termination point NRVs pressure relief valves, wherever needed the system will be																		
25		Nos	1.00	946000.00	946000.00	1.00	946000.00	946000.00	1.00	1.00	946000.00	946000.00	0.00	0.00	0.00	946000.00	0.00		

Sl. No.	Description	Unit	Qty. as per Sanctioned Estimate			Qty. as per Tender			Actual executed Qty.	Qty. as per Actuals upto 125%			Qty. as per Actuals above 125%			Total Executed Amount	Savings	Excess	Remarks
			Qty.	Rate	Amount	Qty.	Rate	Amount		Qty.	Rate	Amount	Qty.	Rate 2018-19+/- T.P	Amount				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
26	Providing and Construction of pup panel cabin MS material vertical 50 x 100 mm thick tube, rather 50 x 100 mm thick rectangle tube 50 x 50 mm thick tube purlines, roof panel of 30 mm sandwich puf panel density : 40 kg and	No	1.00	250204.80	250204.80	1.00	250204.80	250204.80	1.00	1.00	250204.80	250204.80	0.00	0.00	0.00	250204.80	0.00		
	Electrication Charges				50000.00											6251628.19		364145.27	
	Sub Total				6302488.71			50000.00								6301628.19	365006.19	364145.27	
	KRIDL Charges @ 10%				630248.87			6302489.11								6301628.19	365006.19	364145.27	
	Third Party Inspection Charges @ 1%				63024.89			63024.89								630162.82	36500.62	36414.53	
	Miscellaneous and unforgen charges	LS			4238.00			63024.89								63016.28	3650.06	3641.45	
	Total				7000000.00			6995762.91				5925019.29			326608.90	6994807.29	405156.87	404201.25	

SUMMARY:

- 1 Estimated Cost : Rs. 70.00 Lakhs
- 2 Approved Cost : Rs. 69.95 Lakhs
- 3 Work Slip Amount Rs. 4,04,201.25 = 5.77 % of the Tender Amount
- 4 During execution as per requirement and site condition, the total Qty to be executed costs Rs. 69.95 Lakhs which is 0.014% BELOW the Tender cost. The proposal may kindly be approved.

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Assistant Engineer

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Kodigehalli Sub Division

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Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division, Bangalore - 92

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BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: KODIGEHALLI

***Name of Work: Modified Estimate for
Improvements to drains in chikka siddappa Layout
AND ESTABLISHMENT OF RO PLANT AND
PROVIDING AND FIXING OPEN Gym and childrens
play eyuipments in Amruthalli in ward no.07,***

Job Code: 007-17-000040

Estimated Cost: Rs. 70,00,000.00

Modified Amount: Rs. 69,95,763.00

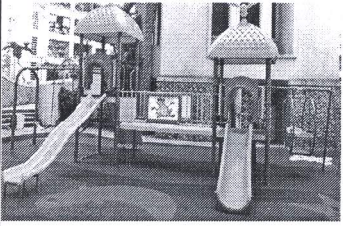
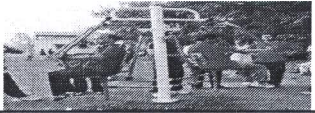
BRUHATH BANGALORE MAHANAGARA PALIKE

Name of work:-Modified Estimate for Improvements to drains in chikka siddappa Layout AND ESTABLISHMENT OF RO PLANT AND PROVIDING AND FIXING OPEN Gym and childrens play equipments in Amruthalli in ward no.07, Byatarayanapura Kodigehalli Sub Division.

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
1	KSRRB 300-1. Earthwork excavation by manual means in rodinary soil involving an average horizontal throw upto 2 m and an average lift upto 1.5m, excavated surafce levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking clods complete as per specifications.. Pg No.141.Item No.19.1)	cum						
	Desilting of drains							
	Laxminarayana temple road	2	300	0.6	0.6	216		
	Main road	2	140	0.45	0.45	56.7		
	cross road	2	30	0.45	0.45	12.15		
	Main road	2	140	0.45	0.45	56.7		
	Basic rate		82.00			341.55	86.92	29688
	Add A.W. 6%		4.92					
	Total		86.92					
2	KSRRB 2-1.1: Earthwork in surface excvaton in ordinary soil for levelling and lowerng the ground manually (other than foundation of buildings, culverts road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exeeding 50m and lift upto 1.5m, excavated stuff to a distance not exceeding 50m and lift upto 1.5m excavated syrface levelled and neatly dressed, disposed earth to be levelled after breaking of clods and neatly dressed as per specifications.(Pg No.5.Item No.2.1)	Cum						
	For open gym and children play equipments	4	0.45	0.45	0.3	0.24		
	Road work- only for road cut portion							
	Main road	1	32	3	0.2	19.2		
	cross road	1	10	4	0.2	8		
	Main road	1	60	2.5	0.2	30		
	Basic rate		157.00			57.44	166.42	9560
	Add A.W. 6%		9.42					
	Total		166.42					

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
	Providing and constructing load bearing wall with solid concrete solid blocks having block density not less than 18000 Kg/m3 having a minimum average compressive strength of 5.00 N/mm2 conforming to IS 2185 (PART 1):2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials including cost of all materials, labour charges, scaffolding, curing complete as per specifications. with solid concrete blocks 400x200x200mm (PWDSR 2015-16, I. 5.27.1, P. 25.1)	Sqm						
	CC Road - One side					0		
	Basic rate		937.00			0.00	993.22	0
	Add A.W. 6%		56.22					
	Total		993.22					
4	Providing granite slabs of selected quality roughly dressed and fixed in cementer mortar (1:6) including fixing curing etc., complete. Pg No.25, Item No.5.31.1 (7.5 cms thick)	cum						
	CC Road - One side BS Slab drain	1	6.5	1.35		8.775		
	Covering slab	1	6.5	0.6		3.9		
	Basic rate		628.00			12.68	665.68	8438
	Add A.W. 6%		37.68					
	Total		665.68					
5	KSRB 4-1.3: Providing and laying in position plain cement concrete of nominal mix 1:4:8 using 40mm and down size graded granite metal machine mixed, concrete laid in layers not exceeding 15 cms. Thick well compacted in foundation and plinth, including cost of all materials labour, HOM of machinery, curing complete as per specification . (Pg.No.12, It.4.3)	cum						
	For open gym and children play equipments	4	0.45	0.45	0.15	0.12		
	Basic rate		4867.00			0.12	5159.02	627
	Add A.W. 6%		292.02					
	Total		5159.02					
	Basic rate		68.00					

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
	Cement concrete pavement. Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 with 25mm and down size graded granite metal coarse aggregates and fine aggregates, with superplasticiser @ 3lts confirming to IS9103-1999 REAFFIRMED-2008, Mixed in a concrete mixer of not less than 0.6 cum capacity and approximate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing) and spreading the concrete with shovels, rammers compacted using needle, screed and plate vibrator and finished in a continuous operation including, provision of contraction, expansion, construction operation including longitudinal joints, including groove cutting charges joint filler, separation membrane, sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specification. M20 (AT 300 Kg per cum	cum						
	CC Road					0.00		
	Basic rate		5197.00			0.00	5508.82	0
	Add A.W. 6%		311.82					
	Total		5508.82					
	Basic rate		68.00					
7	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed concrete laid in layers not exceeding 15cms thick well compacted in foundation plinth and cills including cost of all materials, labour HOM of machinery curing complete as per specifications. (Item No.4.6, Page No.12)	cum						
	For open gym and children play equipments	4	0.45	0.45	0.15	0.12		
	Basic rate		5441.00			0.12	5767.46	701
	Add A.W. 6%		326.46					
	Total		5767.46					
8	Providing and fixing open gym equipments and children play equipments in Amruthalli,							

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
		0	TMP P011 PLAY ZONE			0	1339324	0
		1	TMP 013 WONDER PLAY			1	1866124	1866124
		1	TMP005- Thrill Fun			1	1388132	1388132
		1	Chest Press			1	182114	182114
			GST CHARGES 18%					618546.6
9	KSSRB M 400-17: Providing laying, spreading and compacting graded fine aggregate to wet mix macadam specificationns including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surfc and compating with vibratory roller to achieve the desired density complete as per specifications. MORTH specifications no. 406(P-157., It No: 20.18)	Cum						
	Road work- only for road cut portion							
	Main road	1	140	4.8	0.15	100.80		
	cross road	1	30	4.8	0.15	21.60		
	Main road	1	140	4.8	0.15	100.80		
						223.20		
						60.00	1768.05	106083
						163.20	2001.28	326609
	Basic rate		1888.00					
	Add A.W. 6%		113.28					

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
	Total		2001.28					
10	KSRRB-500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and or/ compressed air to receive bituminous treatment including cost of all materials, labour, HOM Machineries complete as per specifications.(Page No.161, Item No.21.2)	Cum						
	Main road	1	140	4.8		672.00		
	cross road	1	30	4.8		144.00		
	Main road	1	125	4.8		600.00		
						1416.00	3.18	4503
	Basic rate		3.00					
	Add A.W. 6%		0.18					
	Total		3.18					
11	KSRRB 500-07: Providing and applying tack coat with 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour HOM Machineries complete as per specifications.. (Pg No. 160. Item No. 21.7)	Cum						
	Main road	1	140	4.8		672.00		
	cross road	1	30	4.8		144.00		
	Main road	1	125	4.8		600.00		
						1416.00	11.66	16511
	Basic rate		11.00					
	Add A.W. 6%		0.66					
	Total		11.66					
12	KSRRB 500-18: Providing and laying semi dense bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work to site, laying with a hydrostatic paver with paver finisher to the required grade, level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH Specification clause No. 500.8 complete in all respects as per specifications.-25-30mm compacted thickness with 5% bitumen 80/100 grade (grading II).(P178, It No: 21.20.6)	cum						
	Main road	1	140	4.8	0.03	20.16		
	cross road	1	30	4.8	0.03	4.32		
	Main road	1	125	4.8	0.03	18.00		

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
						42.48	6433.14	273280
	Basic rate		6069.00					
	Add A.W. 6%		364.14					
	Total		6433.14					
13	KSRRB M800-13: Road marking with hot applied thermoplastic compound with reflectrising glass beads on bituminous surface. Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250gms per sqm area, thickness of 2.5mm is exclusive of surface apllied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH specifications No.803.(Pg No.185.Item No.24.15)							
		Sqm						
	Main road	2	140	0.1		28.00		
	cross road	2	30	0.1		6.00		
	Main road	2	125	0.1		25.00		
						59.00	542.72	32021
	Basic rate		512.00					
	Add A.W. 6%		30.72					
	Total		542.72					
14	KSRRB M100-1 Loading and unloading of stone boulder/stone aggregates/ sand/ kanker/ moorum. KSRRB M100-1:Placing tipper at loading point loading with front end loading, dumping turning for return trip, excluding time for haulage and return trip complete as per specification MORTH Chapter 1 (Page 118, item No. 17.1)							
		Cum						
	Basic Rate		68.00			341.55	106.00	36205
	Rs. 2.50 Tonne Km.							
	Average Weight of earth 1.28 Tonne/Km.							
	For 10 Km							
	Rs.2.50X1.28TonneX10Km		32.00					
	Total		100.00					
	Add Area Weightage6%		6.00					
			106.00					
RO PLANT								

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
1	KSRB 2-1.1: Earth work in surface excavation in ordinary soil for leveling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe line and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications, Specification No KBS 2.1(a) / 2.3.1, No. 5 / Item No. 2.1							
		Cum						
	For Leveling Ground	1	4	3.5	0.15	2.10		
	Centre Line 2 Nos	1	3.65	0.9	0.9	2.96		
		1	3.05	0.9	0.9	2.47		
	Basic rate		157.00			7.53	169.56	1277
	Add A.W. 8%		12.56					
	Total		169.56					
16	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180 kgs with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57 cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2. No. 12 / Item No. 4.3 /							
		Cum						
	Wall Portion	2	3.65	0.90	0.15	0.99		
		2	3.05	0.90	0.15	0.82		
	Flooring	1	3.20	2.60	0.15	1.25		
	Building Surroundings	2	3.65	0.60	0.15	0.66		
		2	3.05	0.60	0.15	0.55		
	Basic rate	Cum	4867.00			4.26	5256.36	22408
	Add A.W. 8%		389.36					
	Total		5256.36					
17	KSRB 5.2.3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.KBS 5.1.13 Page No. 23 / Item No. 5.6 /							
		Cum						
	Wall Portion	2	3.65	0.75	0.60	3.29		

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
		2	3.05	0.75	0.60	2.75		
	Basic rate		4187.00			6.03	4521.96	27268
	Add A.W. 8%		334.96					
	Total		4521.96					
18	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.KBS 5-1.13 Page No. 23 / Item No. 5.9 /	Cum						
	Wall Portion	2	3.45	0.45	0.45	1.40		
		2	2.90	0.45	0.45	1.17		
	Basic rate		5005.00			2.57	5405.40	13902
	Add A.W. 8%		400.40					
	Total		5405.40					
19	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 Page No. 6 / Item No. 2.10	cum						
						7.53		
	Basic rate		127.00			7.53	137.16	1033
	Add A.W. 8%		10.16					
	Total		137.16					
20	KSRB 4-1.6 : Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15cms, thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications, specification. No. KBS 4.1,4.2. No. 12/ Item No. 4.6	cum						
		2	3.45	0.45	0.10	0.31		
		2	2.90	0.45	0.10	0.26		
	Building Surroundings	2	3.65	0.60	0.10	0.44		
		2	3.05	0.60	0.10	0.37		
	Basic rate		5441.00			1.38	5876.28	8083
	Add A.W. 8%		435.28					
	Total		5876.28					

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
21	Providing flooring with 60 cms.x 60 cms. size Vitrified glazed tiles of approved quality & make, fixed on top of existing flooring fixed with suitable adhesive, including cutting the tiles to the required size and fixing etc., complete Page No. 107, Item No. 14.44,	cum						
		2	3.20	2.60		16.64		
	Basic rate		1069.00			16.64	1154.52	19212
	Add A.W. 8%		85.52					
	Total		1154.52					
22	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 of size 450x200x400 mm and finished with CM 1:3 plastering and finishing cutting etc., complete. Page No. 25 / Item No. 5.29.1)	No						
		1	130.00			130.00		
	Basic rate		364.00			130.00	385.84	50160
	Add A.W. 6%		21.84					
	Total		385.84					
23	Providing and applying ready mix priming coat over concrete / masonry, / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter and sand papering including cost of materials, labour complete as per specifications. Page No. 122 / Item No. 15.80)	Nos						
		1	130.00		0.45	58.50		
	Basic rate		26.00			58.50	27.56	1613
	Add A.W. 6%		1.56					
	Total		27.56					
24	Providing and applying spray painting in two coats (excluding priming coat) over concrete / masonry, / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter and sand papering including cost of materials, labour complete as per specifications. Page No. 121 / Item No. 15.81)	Nos						
		1	130.00		0.45	58.50		
	Basic rate		66.00			58.50	69.96	4093
	Add A.W. 6%		3.96					
	Total		69.96					

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
20	KSRB 14.6-1: Providing and laying heavy duty cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. Specification No. KBS (P.101/I.14.6)	Sqm						
		1	5.00	1.50		7.50		
	Basic rate		912.00			7.50	966.72	7251
	Add A.W. 6%		54.72					
	Total		966.72					
Providing RO Plant								
26	Providing reverse osmosis system to cover 2000 Liters of High TDS water per hour							
	TECHNICAL SPECIFICATIONS							
	Flow Rate:							
	Feed Water : 5000 LPH							
	Treated Water : 3000 LPH							
	Reject Water : 2000 LPH							
	RAW WATER PUMP							
	Purpose:- To feed the Dual Media filter at pressure more than 2.00 bars which is min operating pressure for filter?							
	SAND MEDIA FILTER							
	Purpose:- To remove the total suspended solids, dirt, iron and reduce silt density index which can foul the members							
	ACTIVATE CARBON FILTER							
	Purpose:- To remove the total color, smell, odor from the water.							
	Media: Mixed bed sand media consisting of the following i) Gravel ii) Pebbles iii) carbon Average porosity 50 micron particulate size bed depth : 1500 mm pipelines & Accessories : Pipe of PVC 10 Bar tested pressure testing cock & pressure gauges at inlet - outlet of system							
	DOSING SYSTEM							

SL	Description of work	No.	Dimensions			Qty	Rate	Amount
			L	B	D			
1	2	3	4	5	6	7	8	10
	Purpose : To dose anti scaling chemical to protect the scaling formation on RO Membranes							
	MICRON FILTER							
	Purpose : To remove the fine particles ip to 05 microns and reduce silt density levels to acceptable level.							
	HIGH PRESSURE PUMP							
	Purpose : To feed the reverse Osmosis membrane at pressure more than the osmotic pressure taking into consideration flux rate, flow and recovery							
	RO membrane housing.							
	Purpose : To pack membrane and operate at high pressure.							
	RO MEMBRANES							
	Purpose : To remove the major part of TDS into 98% by Reverse Osmosis Membranes arranged and designed to give adequate flow the Recovery.							
	RO CLEANSING SYSTEM							
	ELECTRICAL PANEL							
	Purpose : A control panel is provided as a safety measure for the pumps & other electrical items.							
	Specifications a) Complete starters, overload relays, b) Voltmeter, Ammeter, MCB's indicating lights, c) Rocker switches for Dozers, d) incomers, Auto-Manual switches.							
	INSTRUMENTATION							
	Purpose : a) Flow meter : To measure the online flow of water flowtec b) Low pressure switch : To protect RO pump from dry running c) High pressure switch : To protect RO pump from back pressure d) Pressure Gauges : For calculate AP for each unit in RO system							
	PH DOSING SYSTEM							
	Purpose to dose sodium Bi-carbonate for enhances product water SS till the pre-filtration & SS from HPP to thhe premeter line termination point NRV's pressure relief valves, wherever needed the system will be on common SS base frame supply & manufacture of complete Reverse Osmosis plant stainless steel tank (2kl) Raw water tank (5kl) with stainless steel pipe line required for plant erection.							
		1					1.00	946000

